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## FOREIGN TECHNOLOGY CENTER

**Title:** COSMONAUTS CONDUCT MEDICAL EXPERIMENTS, REFUEL "MIR" STATION

**Primary Source:** *Krasnaya zvezda*, February 26, 1992, No. 46 (20733), p. 1, col. 6

**Entire Text:** The first two days of Aleksandr Volkov and Sergey Krikalev's work week are reserved for medical experiments, the purpose of which is to obtain additional information on the state of the human organism in conditions of a prolonged space mission. In accordance with the schedule for work with the spaceship "Progress M-11," tanks of the station have been refilled with fuel. Plans call for a correction of the orbit of the manned complex "Mir" to be executed, using the cargo ship's engine.  
(SNAP 920327)

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**Author:** *Makhlin, M.*

**Title:** IL-96-300 AND A-40 AIRPLANES IN SINGAPORE AIR SHOW

**Primary Source:** *Krasnaya zvezda*, February 26, 1992, No. 46 (20733), p. 2, cols. 1-3

**Extract:** More than 1,100 participating firms from 38 countries have assembled at an International Aerospace Show which opened in Singapore on February 25.

The Russian Ministry of the Aviation Industry, Russia's Aviaprom (aviation industry) union and the "Aviaeksport" association are showing the IL-96-300 airplane, the A-40 "Albatros" flying boat and other exhibits. In the estimation of local observers, these airplanes are quite competitive, which makes the absence of other aircraft in Singapore and their nonparticipation in demonstration flights all the more regrettable.

The "Albatros" -- a multipurpose aircraft which is used for rescue operations, patrolling, firefighting and cargo and pas-

senger transport operations -- is being shown in an antisubmarine version. A crew under the command of Gennadiy Kalyuzhnyy has demonstrated remarkable flight performance, arousing the admiration of numerous spectators. It is too bad that the air show's organizers did not manage to clear the waters next to the airfield of vessels and small craft on the first day, so that the "Albatros" could prove itself to be a first-class seaplane. After all, it is the only airplane in the world which does not fear rather high waves.  
(SNAP 920327)

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**Author:** *Frolov, V., Candidate of Technical Sciences*

**Title:** FEATURES OF WESTERN ULTRAPRECISE ANTI-AIRCRAFT-MISSILE SYSTEMS

**Primary Source:** *Krasnaya zvezda*, February 26, 1992, No. 46 (20733), p. 3, cols. 3-7

**Abstract:** The article is a military-technical survey of Western air defense weapons and equipment with advanced electronics, phased-array antennas, noninertial control of polar diagrams and other features which ensure highly precise aiming and high target-kill probability. Experience of the Persian Gulf war has demonstrated that such weapons can be developed, according to the author. The antenna system AN/MPQ-53 of the "Patriot" surface-to-air missile complex is praised in particular.  
(SNAP 920327)

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**Author:** *Agapova, Yelena, correspondent*

**Title:** MILITARY HOSPITAL'S TOMOGRAPHY EQUIPMENT, FINANCIAL TROUBLES

**Primary Source:** *Krasnaya zvezda*, February 26, 1992, No. 46 (20733), p. 4, cols. 1-4

**Abstract:** The article reports on the resources and financial and personnel problems of the Main Military Clinical Hospital imeni Burdenko in Moscow. A conversation with General-Major of the Medical Service Nikolay Leonidovich Krylov, head of the hospital, is recorded.

The Hospital imeni Burdenko is said to be the country's largest military hospital, with 245 military physicians and 160 civilian physicians on its staff and up to 1,500 patients. Last year, 5,648 surgical operations were performed here. The author reports that a well-organized system for referring gravely ill patients to the hospital from other regions and republics of the Commonwealth of Independent States (CIS) is still operating. The hospital's divisions include a radiology center with high potential and a hematology center which is the only one of its kind in the armed forces. The work of the hospital's departments of abdominal surgery, neurosurgery and cardio-surgery is praised in particular. Highly complex transplants of bone marrow to patients with diseases of the blood were recently performed here for the first time. At the disposal of the hospital's physicians are unique lasers, accelerators, hyperthermic units, ultrasonic and radionuclide diagnostic systems, and computerized microanalysis equipment.

Colonel of the Medical Service Vladimir Nikitin, chief x-ray technician of the hospital, explained the operating principles of a computerized nuclear magnetic resonance unit which recently went into operation in the hospital's department of nuclear magnetic tomography. Through the interaction of a magnetic field with the protons of hydrogen nuclei, this unit enables a physician to examine internal organs of a patient without the aid of x-radiation and radiopaque substances. The tomograph is said to be the only one of its kind in the armed forces and the most powerful in the CIS. It raises diagnosis at the hospital to an absolutely new level.

Commenting on the hospital's present difficulties and their causes, Krylov pointed out that the CIS' armed forces have no budget as yet, while the cost of transplant and other surgery, hospital care, donor blood and medical equipment and preparations is soaring. The hospital needs

almost 100 more staff physicians than it has at present, but there is a shortage of housing for military medical personnel in Moscow. Military medical officers now earn only 1,500 rubles a month, on the average, and technical personnel who tend unique equipment are underpaid. If conditions fail to improve, the hospital may be forced to charge some of its patients for its services. Krylov is personally opposed to this, chiefly because many people who require treatment for serious conditions cannot afford it.

Three photographs are given showing a scanner in the department of nuclear magnetic tomography; and N. Krylov and V. Nikitin.

(SNAP 920327)

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**Title:** RSFSR ACADEMY OF TRANSPORTATION ANNOUNCES MEMBERSHIP VACANCIES

**Primary Source:** *Sovetskaya Rossiya*, October 30, 1991, No. 206 (10657), p. 3, col. 1

**Abstract:** The article is an announcement by the RSFSR Academy of Transportation of vacancies for membership in the academy. There are 57 vacancies for full members and 158 for corresponding members. The vacancies are listed by departments of the academy. Among the departments are physical-technical problems of transportation; reliability, ecology and safety of transportation; and theory and technology of transportation systems.

(SNAP 920327)

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**Title:** SORBENT "IKhANT" FOR TREATING VICTIMS OF IRRADIATION

**Primary Source:** *Narodnaya gazeta*, December 4, 1991, No. 233 (18455), p. 2, cols. 7-8

**Extract:** It was already clear at the very beginning that a therapeutic preparation had been obtained which could compete with homosorbents [sic] based on activated carbon.

A sorbent was synthesized in Doctor of Chemical Sciences Dzhuraboy Khalikov's laboratory at the Tadzhik Academy of Sciences' Institute of Chemistry (IKhANT). This sor-

bent is called IKhANT. The preparation was perfected at the Medical Institute imeni ibn Sino. Here, a medical specialist, Professor Mukhtar Kadyrovich Muradov, came to the aid of the chemists. They were jointly in charge of the testing of IKhANT. When the accident at the Chernobyl Nuclear Power Station happened, radiation-sickness specialists became interested in this preparation.

A new series of tests was required. One group of dogs was irradiated with the same number of roentgens as that received by people who had spent a long time in the accident area, while for a second group this dose was doubled, creating a catastrophic irradiation situation. IKhANT helped in the first case, and all the animals recovered. In the second case, it was ineffective.

The research continues. Great hopes are placed on IKhANT. After all-Union testing, it has returned again to Dushanbe. The chair of anesthesiology and resuscitation headed by M. Muradov has become the base facility for conducting new medical tests.

But IKhANT is healing even now. At Clinical Hospital No. 5, 60 patients were brought out of a serious condition with the aid of this homosorbent.

For the time being, the preparation is being made at the Institute of Chemistry, in the laboratory of biomedical polymers, which is headed by Doctor of Chemical Sciences Dzhuraboy Khalikov.

(A photograph is given showing Doctor of Medical Sciences Abdumadzhid Vakhidov; Abduvasid Rakhimov, a graduate student; and a nurse using the sorbent to treat a patient in serious condition.)  
(SNAP 920327)

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**Title:** N. G. VOLKOV (obituary)  
**Primary Source:** *Vechernyaya Moskva*, October 25, 1991, No. 212 (20596), p. 4, col. 7

**Entire Text:** Doctor of Physical-Mathematical Sciences, Professor Nikolay Grigoryevich Volkov, an eminent scientist, has died at the age of 52.

The announcement of the untimely death is made with deep regret by the Moscow En-

gineering Physics Institute, and condolences are expressed to the family, relatives and friends of the deceased.  
(SNAP 920327)

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**Title:** V. G. VOSKOBOYNIKOV (obituary)  
**Primary Source:** *Vechernyaya Moskva*, February 20, 1992, No. 35 (20676), p. 5, col. 7

**Extract:** Viktor Grigoryevich Voskoboynikov, a metallurgist and eminent scientist, has died.

The death announcement is made with deep regret by the Central Scientific Research Institute of Ferrous Metallurgy imeni Bardin, and condolences are expressed to family and friends.  
(SNAP 920327)

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**Title:** M. V. VOLKENSHTEYN (obituary)  
**Primary Source:** *Vechernyaya Moskva*, February 21, 1992, No. 36 (20677), p. 4, col. 7

**Entire Text:** Mikhail Vladimirovich Volkenshteyn, an eminent scientist in the field of molecular biophysics and a corresponding member of the Russian Academy of Sciences (RAN), died on February 18 of this year at the age of 79, following a grave and prolonged illness.

The death announcement is made with deep regret by RAN, its Division of Biochemistry, Biophysics and Chemistry of Physiologically Active Compounds, and its Institute of Molecular Biology imeni Engelgardt, and condolences are expressed to the family and friends of the deceased.  
(SNAP 920327)

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